

WHAT IS CLAIMED IS:

1. A power meter comprising:
a temperature sensor;
5 a power disconnect switch; and
a controller operable to monitor the power meter temperature based on
input from the temperature sensor, compare the power meter temperature to a
shutoff threshold; and activate the power disconnect switch if the power meter
temperature exceeds the shutoff threshold.
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2. The power meter of claim 1 wherein the controller is further operable
to compare the power meter temperature to an alarm threshold, the alarm
threshold being less than the shutoff threshold; and generate an alarm if the power
meter temperature exceeds the alarm threshold.
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3. In combination, the power meter of claim 2 and a customer terminal,
the customer terminal being adapted to notify a customer of the alarm if the power
meter temperature exceeds the alarm threshold, the customer terminal comprising:
a terminal controller;
20 a display; and
a terminal communications interface electrically coupled to the terminal
controller, the terminal communications interface being operable to exchange data
with the power meter over a power line carrier.
- 25 4. The power meter of claim 1 wherein the controller is further operable
to activate the power disconnect switch for non-payment of electricity cost.
5. The power meter of claim 4 wherein the controller is inhibited from
activating the power disconnect switch for non-payment of electricity cost below
30 a certain outdoor temperature.

6. The power meter of claim 4 wherein the controller is inhibited from activating the power disconnect switch for non-payment of electricity cost on certain dates.

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7. The power meter of claim 4, further comprising a photo sensor for determining a level of ambient light outside of the power meter, the controller being inhibited from activating the power disconnect switch for non-payment of electricity cost below a certain level of ambient light outside of the power meter.

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8. In an electric energy metering system including a power meter having a temperature sensor, a controller, and a power disconnect switch, a method comprising the controller performing steps of:

15 monitoring a power meter temperature reported to the controller from the temperature sensor;
comparing the power meter temperature to a shutoff threshold; and
activating the power disconnect switch if the power meter temperature exceeds the shutoff threshold.

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9. The method of claim 8 further comprising the step of:
comparing the power meter temperature to an alarm threshold, the alarm threshold being less than the shutoff threshold; and
generating an alarm if the power meter temperature exceeds the alarm threshold, thereby defining an alarm condition.

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10. The method of claim 9 wherein the electric energy metering system includes a customer terminal, the step of generating an alarm comprising alerting a customer of the alarm condition via the customer terminal.

11. The method of claim 9 further comprising:

when in the alarm condition, comparing the power meter temperature to an alarm reset threshold, the alarm reset threshold being less than the alarm threshold; and

5 deactivating the alarm, thereby defining a deactivated alarm condition, if the power meter temperature falls below the alarm reset threshold.

12. The method of claim 11 wherein the electric energy metering system includes a customer terminal, the step of deactivating the alarm comprising
10 notifying a customer of the deactivated alarm condition via the customer terminal.

13. The method of claim 9, wherein the power meter includes a power measurement sensor, the method comprising:

when in the alarm condition, monitoring instantaneous power measured by
15 the power measurement sensor;

 determining a maximum instantaneous power measured by the power measurement sensor; and

 if the instantaneous power falls a fixed percentage below the maximum instantaneous power, deactivating the alarm, thereby defining a deactivated alarm
20 condition.

14. The method of claim 9, wherein the power meter includes a power measurement sensor, the method comprising:

when in the alarm condition, monitoring instantaneous power measured by
25 the power measurement sensor;

 determining a maximum instantaneous power measured by the power measurement sensor;

 if the instantaneous power falls a fixed percentage below the maximum instantaneous power, deactivating the alarm, thereby defining a deactivated alarm
30 condition; and setting a variable alarm threshold, the variable alarm threshold

corresponding to the power meter temperature when the instantaneous power has fallen the fixed percentage below the maximum instantaneous power; and

when in the deactivated alarm condition, comparing the power meter temperature to the variable alarm threshold; and

5 re-activating the alarm, thereby defining a re-activated alarm condition, if the power meter temperature rises above the variable alarm reset threshold.

15. A method, performed by an electric energy metering system, comprising:

10 determining that a customer premises is eligible for disconnection of power under a primary criteria;

checking whether the customer meets a secondary criteria for disconnection of power;

15 disconnecting power to the customer premises only if the customer is eligible for disconnection of power under the primary and secondary criteria.

16. The method of claim 15, wherein the primary criteria is based on non-payment of electricity cost by the customer.

20 17. The method of claim 16 wherein the secondary criteria is based on one or more of: an outdoor temperature of the customer premises, a time of day, a calendar date after which disconnection of power is restricted, and an amount of outdoor light outside the customer premises.

25 18. The method of claim 15 further comprising:
if the customer is determined to be eligible for disconnection of power under the primary and secondary criteria, alerting the customer of the determination.

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